Studia Periegetica no. 2(30)/2020
DOI: 10.5604/01.3001.0014.4152

Aleksandra Łapko*, Roma Strulak-Wójcikiewicz**, Aleksander Panasiuk***

Air quality as a factor affecting urban tourism

Abstract. The purpose of the article is to determine whether potential tourists consider information about a city's air quality in their assessment of its tourist attractiveness and how this this information affects their travel decisions. Urban tourism is a common and dynamically developing form of tourism. Cities encourage tourists to visit them with various attractions, cultural, gastronomic and accommodation offerings as well as mass events. At the same time, they are often industrial centres and important transportation hubs, which makes them characterized by a high degree of air pollution. The article presents results of a survey involving 509 respondents from Poland. The data were used to assessment to what extent information about air quality in a given city is relevant for people planning a tourist trip. In addition, the survey provided information about factors that could increase the respondents' interest in the level of air quality in a city they were planning to visit. Particular attention was paid to the respondents' health. Many diseases can be the result of air pollution, or can be aggravated by substances contained in smog. Therefore, the authors tried to determine whether people suffering from such illnesses were more likely to pay special attention to air quality in their prospective destinations. The results constitute a significant contribution to the knowledge about the factors affecting demand in urban tourism. They may be relevant for entities responsible for managing cities and promoting tourism products. The article also draws attention to the fact that problems arising from air pollution in cities can affect not only their residents, but also tourists.

Keywords: urban tourism, tourism management, tourist attractiveness, sustainable tourism

JEL Codes: Z32, Q59, D01

* Maritime University of Szczecin (Poland), Faculty of Engineering and Transport Economics, Email: a.lapko@am.szczecin.pl, orcid.org/0000-0003-0235-6329.

** Maritime University of Szczecin (Poland), Faculty of Engineering and Transport Economics, Email: r.strulak@am.szczecin.pl, orcid.org/0000-0002-9702-7554.

*** Jagiellonian University (Poland), Faculty of Management and Social Communication, Email: aleksander.panasiuk@uj.edu.pl, orcid.org/0000-0002-5807-6636.

1. Introduction

The modern tourist market is affected by many negative phenomena, which have a considerable effect on the functioning of urban tourist destinations and on decisions made by potential tourists regarding the choice of a particular destination. These phenomena threaten the development of cities and urban tourism, which is one of the most popular forms of tourism. Cities which function as tourist destinations are characterized by a high concentration of tourist traffic, hence these negative phenomena often largely affect urban tourism space. One important category of threats to incoming tourist traffic includes factors causing the quality of urban space to deteriorate, as a result of activities of business entities, transportation and the daily life of residents.

The main aim of the article is to determine whether air quality in a given city is an important factor for people planning a tourist trip. To do that, the authors examined the principles and methods of providing information about the current state of air pollution in cities in Poland and in the European Union. Additionally, a questionnaire survey was conducted to identify factors that could encourage potential tourist to become more interested in information about air quality in their prospective destinations.

The subject is important given the mass character of urban tourism and the growing number of cities facing problems with maintaining official air quality standards. As demonstrated by the literature review, despite its importance, the subject is rarely the focus of scientific research. Therefore, the study fills an existing research gap. It also draws attention to the fact that air quality in cities is important not only for their inhabitants, but also for potential tourists, who take it into consideration when assessing their tourist attractiveness; it can, therefore, influence the economy of a given city.

2. Methods

The impact of information about the level of air pollution on decisions concerning tourist trips was examined on the basis of data collected using a CAWI survey. The link to the survey was sent via e-mail and was also posted on the authors' Facebook profiles. Emails advertising the survey were sent to employees of universities, public administration offices, public libraries and other institutions in various Polish cities between February and May 2019, with a request to make it available to potential respondents. It was assumed that each respondent was a potential tourist. However, participation in the survey was limited to respondents

aged 18 and older. In addition, because the survey was conducted in Polish, it did not include any foreigners. 509 persons responded to the survey.

3. Basic information on urban tourism, air pollution and air quality reporting

It is estimated that cities occupy about 2% of the Earth's surface area, but they are inhabited by about 50% of the world's population, and by 2050 this percentage will have increased to 70% [Broere 2016; Luck et al. 2011; IARC 2016]).

It is difficult to unequivocally identify cases of urban tourism because of a wide spectrum of motives for tourist arrivals, which are associated with patterns of tourist behaviour and consumption in cities [Edwards, Griffin, Haylla, 2008; Gospodini 2001; Pawlicz 2008; Koppen 2009; Law 2002]. Urban tourism, also frequently described as metropolitan tourism [Hall 2002], is connected with the destination of tourist traffic, which is an urban area, or more broadly, a metropolitan area, with a developed urban infrastructure, including transport, accommodation, catering, culture, sports and recreation, entertainment, trade, and communal and other services that cater for the needs of tourists and permanent residents [Panasiuk 2007; Rani 2017; Paunović 2014]. Typical objectives that direct tourists to cities include: Sightseeing, cultural, business, sports, family, social, and shopping motives.

Intensive human activity in the urban space results in the creation of pollution, particularly air pollution, which poses a major hazard to human health. There are many causes of air pollution, including non-industrial combustion processes (e.g. from households), combustion processes in the energy sector, road transport, industrial combustion processes, production processes, waste management [Mohamad, Deni, Ul-Saufie 2018; Edwards, Evans 2017]. Air pollutants in cities include various types of particulate matter (PM10 and PM2,5), nitrogen oxides (NOx), sulfur oxides (SOx) and tropospheric ozone. Pollutants negatively affect human health. The impact on individual systems of the human body is briefly presented in Table 1.

PM10 and PM2.5, i.e. particulate matter consisting of particles with an aerodynamic diameter smaller than respectively 10 and 2.5 micrometres. It is a complex mixture of small particles and liquid droplets in the atmosphere, which can consist of aerosols, powders, metals, combustion products, or microorganisms (such as protozoa, bacteria, viruses, fungi and pollen) and can cause different types of diseases [Ramirez-Leal, Cruz-Campas Estuardo-Moreno 2018]. Particulate matter is considered to be the main air pollutant. When inhaled, particles are not always expelled by the body's immune system, causing a variety of human

Table 1. Impact of air pollutants on the human body

Air pollutant	Impact on the human body				
	Central nervous system (Alzheimer's disease, headaches, migraines)	Respiratory system (asthma, cancer)	Cardiovascular system	Liver, spleen, blood	Reproductive system
PM10	X	X	X	–	X
PM2.5	X	X	X	–	X
NOx	–	–	–	X	–
SOx	X	–	X	–	–
O_3	–	–	X	–	–

X: proven impact, (–): no proven impact

Source: based on ZEC 2020.

health problems [Directive 2008/50/EC 2008]. They are so dangerous because, in the case of PM2.5, there is no identifiable threshold below which they do not pose a risk [EEA 2015]. Children, the elderly and pregnant women are particularly vulnerable to air pollution. Particulate matter can also cause delayed intellectual development, lung development disorders, problems with memory, attention and concentration. In the elderly, long-term contact with particulate matter increases the risk of heart attack and impairs mental performance (dementia).

Nitrogen oxides (NOx) and sulphur oxides (SOx) in the air also cause health problems. Long term exposure can decrease lung function, increase the risk of respiratory conditions and contribute to the formation or exacerbation of allergy [Lin et al. 2019]. These compounds cause smog and acid rain and contribute to the formation of fine particles (PM) and tropospheric ozone.

Tropospheric ozone (O_3), otherwise known as ground-level ozone, is a secondary pollutant that is formed as a result of photochemical reactions of nitrogen oxides and volatile organic compounds in the atmosphere [GIOŚ 2016]. Its formation is accelerated by high air temperatures. For this reason, the highest concentrations are usually recorded in spring and summer, so in the high tourist season. Tropospheric ozone is a major component of smog and has an extremely negative impact on human respiratory system [CCAC 2020].

Exposure to air pollution is associated with increased mortality and a shortened life expectancy, even at relatively low concentrations [Jędrak et al. 2017]. Based on data for 2011 from 39 countries, it was estimated that about 430 000 premature deaths in the EU were attributed to PM2.5 and PM10 [Acid News 2016]. As regards, worldwide health impacts of air pollution, there are around 7 million deaths a year, and in Poland between 42,000 and 45,000 die every year

due to the exposure to pollution and the resulting respiratory, cardiovascular and cancer diseases, (statistically one person every ten minutes); in addition, pollution is responsible for about 2,000 miscarriages [ZEC 2020].

Owing to the threat posed by air pollution to the human body, most countries publish their air pollution levels to enable people to avoid the risk associated with going outside or use various personal protective equipment. While there are EU guidelines concerning information and alarm levels for SO_2, NO_2 and O_3 [Directive 2008/50/EC], no such guidelines exist for PM10 concentration and, therefore, specific requirements in this respect are determined by individual countries. Since this is the responsibility of national, regional or local administrations, specific arrangements apply to the whole country and sometimes to individual regions or cities. Member States decide on their own whether or not to report the level of air pollution. However, most European countries have introduced such limits to protect their citizens' health. Based on the available data, Table 2 shows examples of PM10 alarm levels in different European countries, regions and cities.

Table 2. Information and alert levels for PM10 concentrations in selected EU countries and regions/cities (μg/m^3)

No.	Country name	Information thresholds * (μg/m^3)	Alert thresholds ** (μg/m^3)
1	Austria	50	75
2	Belgium	50	70
3	Czech Republic	100	150
4	Finland	50	50
5	France	50	80
6	Germany (Stuttgart)	no data available	50
7	Great Britain	76	101
8	Hungary	75	100
9	Italy (Lombardy)	50	75
10	Macedonia	50	100
11	Poland***	100	150
12	Slovakia	100	150
13	Spain (Catalonia)	50	80
14	Switzerland	75	100

* Information Threshold: At this stage it is obligatory to inform the population and make it aware about risks to particularly sensitive groups (children, elderly, patients).

** Alert Threshold: At this stage it is obligatory to take concrete steps to reduce smog. The entire population is affected by health risks.

*** Data update for 2019 [GIOŚ 2020].

Source: based on Wiesen 2017.

As shown in Table 2, information and alarm levels in Poland are among the highest in Europe. Interestingly, until recently (October 2019) they were even higher. Previously, the information threshold was 200 μg/m^3 and the alarm threshold was 300 μg/m^3. These were the highest values in Europe. The decision to set such high values is motivated by high levels of air pollution, which actually exceeds the average European standards for most of the year.

In Poland, information on pollution in individual cities is widely available. The task of collecting such information is the responsibility of Provincial Inspectorates for Environmental Protection that have specialist and licensed measuring equipment. The inspectorates publish the measurement results on their websites. Most cities in Poland disseminate such information, using the following channels:

– websites, including weather services,

– daily radio and television news bulletins (local, regional and national) about air pollution in the region and types of preventive measures that need to be taken to mitigate its impact on health,

– information in daily newspapers,

– digital message boards (used in some Polish cities, including Kraków) placed on main streets, public transport stops or monitors inside trams and buses.

In addition, there are many websites with information on air quality around the globe. Therefore, anyone interested can easily access the latest information about the level of pollution [Łapko, Strulak-Wójcikiewicz, Panasiuk 2020; Łapko et. al. 2020].

Certainly, the effects of pollution are mainly experienced by city dwellers, because they undergo long-term exposure. In some cases, however, even short-term exposure can be dangerous, especially for people with respiratory illnesses. In such cases, the disease may become more severe. People aware of the effects of breathing polluted air are more likely to avoid situations where this is inevitable, such as tourist trips to cities with a high concentration of harmful substances. Since such travel is usually voluntary, the question arises whether air quality in a given city is taken into account by potential tourists in their decisions concerning tourist trips to urban destinations. In particular, during the survey, respondents were asked if they checked the level of pollution in their prospective destination? In another question, they were asked whether, in the event of a trip to a city where the concentration of pollution exceeds permissible levels, they intended to protect themselves against harmful substances and if such measures were related to their current state of health.

4. Results and discussion

509 people responded to the survey, with women accounting for almost three quarters (74%). All respondents were aged between 18 to 75. Figure 1 shows the breakdown of the sample into 7 age groups.

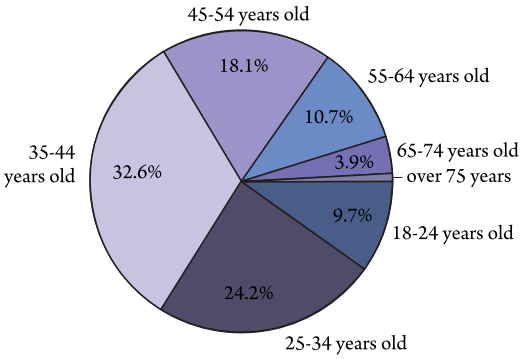

Fig. 1. Age distribution of the respondents

Source: personal collection.

The purpose of the survey was to determine the impact of information about air pollution in a given city on respondents' decisions concerning tourist trips. At the start, all respondents were asked about the frequency of their tourist trips to Polish and foreign cities. Their responses to this question are presented in Figure 2. In both cases, information provided concerned trips lasting up to 1 week.

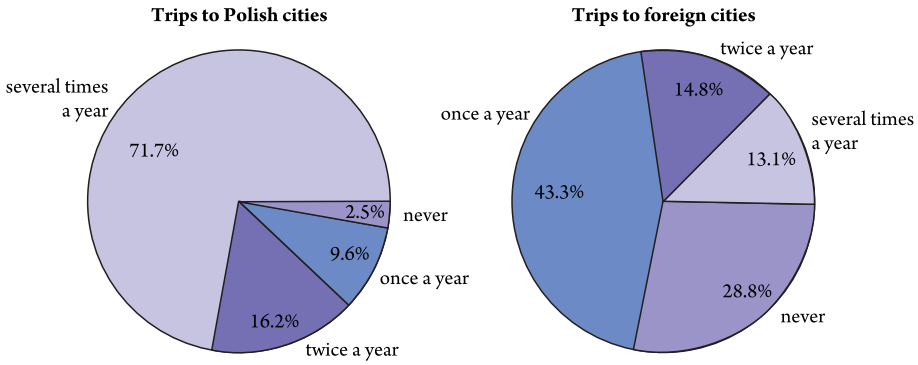

Fig. 2. Frequency of private trips to Polish and foreign cities

Source: personal collection.

The purpose of the following question was to find out whether the level of air pollution affects the tourist attractiveness of cities. Answers were given on a five-point Likert scale. The results are shown in Figure 3.

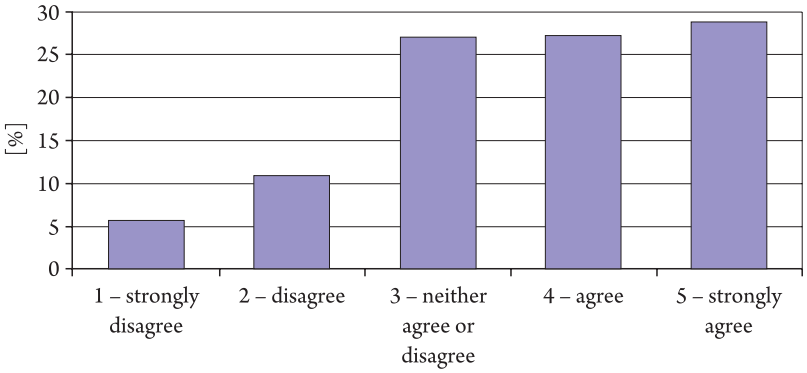

Fig. 3. Distribution of answers to the question: "Do you think that the level of air pollution affects the tourist attractiveness of cities?"

Source: personal collection.

After adding up all positive and negative answers, it turns out that for 56.3% of respondents the level of air pollution has an effect on the tourist attractiveness of cities, while for 16% of respondents, it does not. Nonetheless, in the last 3 years only 12.5% of respondents had decided to cancel their plans of visiting a given city because of information about its poor air quality.

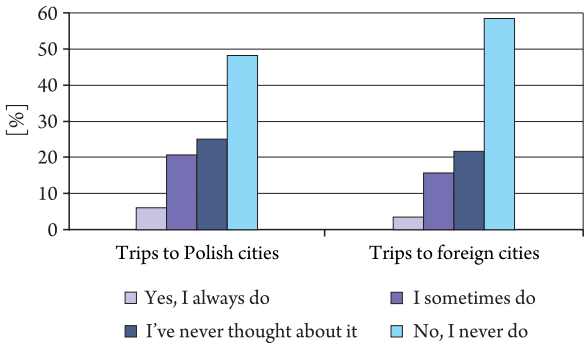

Fig. 4. Distribution of answers to the question: "Do you check the level of air pollution in the destination city before travelling?" depending on city location

Source: personal collection.

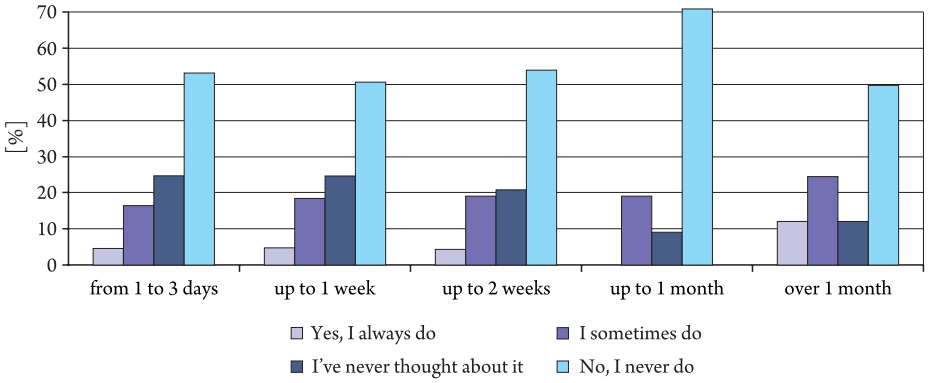

Fig. 5. Distribution of answers to the question "Do you check the level of air pollution in the destination city before travelling?" depending on the duration of the planned trip

Source: personal collection.

In the following question the respondents were asked whether they checked the level of air pollution before traveling (Fig. 4).

Regardless of the length of the planned trip (Fig. 5), at least 50% of respondents said they never checked the level of air pollution. However, in the case of trips lasting more than 1 month, as many as 13% of respondents claimed to always check such information.

Another question concerned respondents' health (Fig. 6). 30.2% of all respondents admitted to suffering from some kind of a chronic disease.

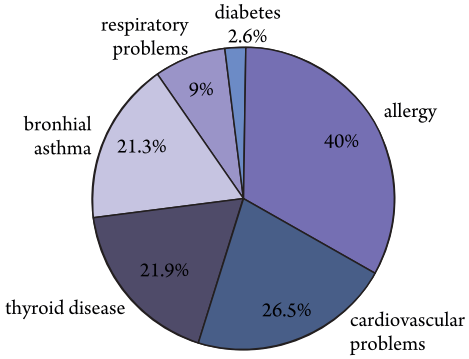

Fig. 6. Distribution of answers to the question: "What chronic diseases do you suffer from?"

Source: personal collection.

In view of this finding, the authors decided to check how many of the chronically ill respondents paid attention to the level of air pollution in cities they were planning to visit (Fig. 7). It was found that most of them either never did so. Interestingly, of the chronically ill respondents who were interested in information about air quality in Polish cities (6.5%), 60% suffered from allergies and only 30% from respiratory problems. Among those planning trips to foreign cities (2.6%), 75% suffered from allergies but there were no people with respiratory problems.

By comparing responses given by all respondents and those with chronic diseases (see Fig. 4 and 7), it can be concluded that a person's health has no impact on their propensity to check the level of air pollution in a given destination.

In order to reduce the negative impact of air pollution on health, various protective measures can be applied. To what extent they are actually used depends on people's awareness of the negative health effects of air pollution. Figure 8 shows respondents' answers to the question: "If you were to travel to a city with poor air quality, would you use any of the following protective measures: a protective mask, pharmaceuticals, limited time spent outside?" 14% of respondents would allow the use of a protective mask, and 7% would be willing to use pharmaceuticals, while the largest number of people (26%) would reduce the time spent outdoors as a method of protection against pollution.

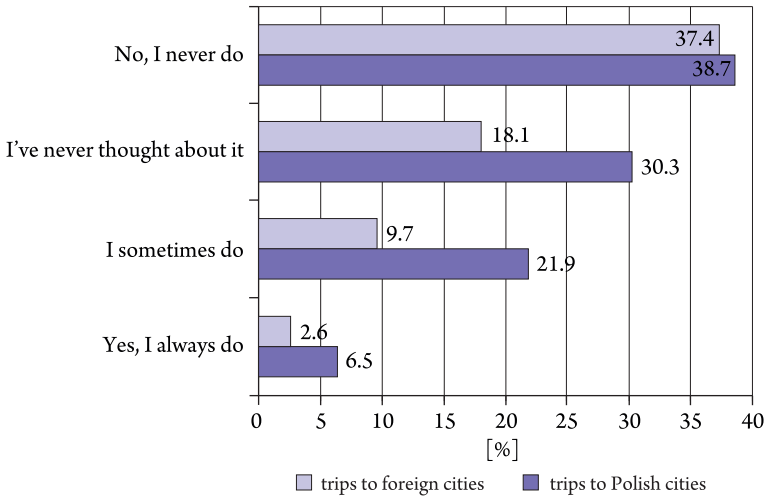

Fig. 7. Distribution of answers of chronically ill respondents to the question "Do you check the level of air pollution in the destination city before travelling?" depending on city location

Source: personal collection.

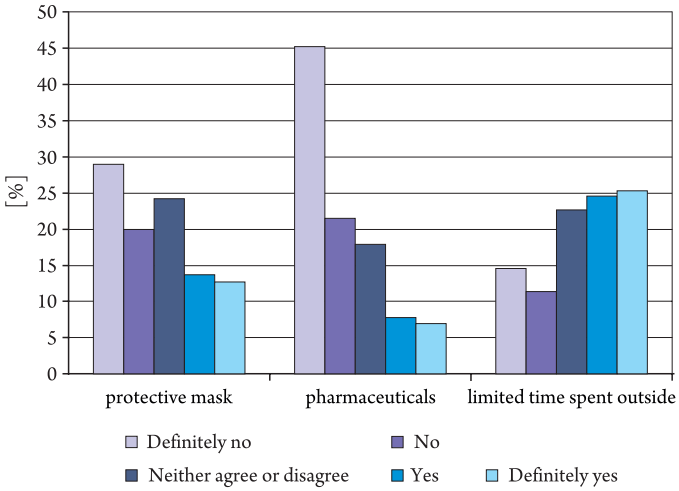

Fig. 8. Respondents' answers to the question: "If you were to travel to a city with poor air quality, would you use any of the following protective measures: a protective mask, pharmaceuticals, limited time spent outside?"

Source: personal collection.

However, most respondents indicated no willingness to use any personal protection measures against pollution. As many as 45% of people would definitely refuse to use pharmaceuticals, 29% would definitely not wear a protective mask, and 15% would definitely not limit the time spent outdoors.

5. Conclusion

More than half of all respondents agreed that air quality was a key factor in their subjective assessment of how attractive a given city destination was. The survey results reveal a contradiction between respondents' beliefs and their actual behaviours. Although air quality was considered to be a factor affecting the attractiveness of a destination by over a half of all respondents (56%), relatively few of them actually checked the level of air pollution in their prospective destinations. This is all the more surprising, when one considers how easily available such information is.

Equally surprising were respondents' answers regarding their willingness to use personal protective equipment against pollution. No correlation was found between the respondents' health and the habit of checking information about

air pollution. This is surprising, given that most of the diseases indicated by the respondents can be associated with air pollution, which can be either be a causative agent or a factor exacerbating the disease. One would therefore expect such people to be particularly interested in information about air quality. Nonetheless, it was found that, regardless of their health, few respondents were ready to wear masks or use other forms of protection. This situation in Poland may change soon. Since April 16, 2020, the use of protective masks in public places has been mandatory due to the COVID-19 pandemic. The ubiquity of this form of protection eliminates potential psychological barriers, which may have been caused some people to avoid wearing masks. Perhaps once the pandemic is over and the obligation to wear masks has been lifted, more people will be willing to use this form of protection against smog. In quantitative terms, smog is more dangerous to human health than the current pandemic. As mentioned earlier, globally, pollution is responsible for 7 million deaths annually, and in Poland for over 40,000. In comparison, SARS-CoV-2 coronavirus, at the time of writing, had caused around 315,000 deaths in the world, including 925 in Poland (data as at 18 May 2020).

People particularly vulnerable to health problems as a result of air pollution include those suffering from chronic respiratory and circulatory diseases, which can largely result from prolonged exposure to air pollution. Therefore, the lack of willingness to use protective measures against air pollution displayed by the majority of potential tourists may be due to the lack of knowledge about this hazard or perhaps result from neglect and underestimating its seriousness.

No doubt, further action is required in the field of education. Air quality and related information is already affecting travel decisions of potential tourists, and, consequently shapes the general tourist image of every city.

In addition to educational activities aimed at raising awareness of the impact of pollution on health, actions should also be taken to improve air quality in cities. Efforts to limit emissions will support the development of cities, including urban tourism, and increase their level of competitiveness, including the level of tourist attractiveness. They can be highlighted as part of cities' promotional efforts on the tourist market and boost their positive tourist image. Such initiatives are a great opportunity for cities which, until now, have not been so popular with tourists and have not shown much concern for air quality in their promotional activities.

In view of the above, it is obvious that the task of managing the city's tourism offering and its tourist attractiveness should be mainly the responsibility of local government units in cooperation with tourist organizations, including economic organisations, regional, and local tourist organizations, and, above all, tourist enterprises. They should be involved in providing information about air quality in urban areas via websites and directly to potential and actual tourists, because it directly influences travel decisions of potential tourists.

At the same time, it should be noted that in 2020 it is difficult to write about tourism and set directions for its development on the basis of observations made and data collected before the outbreak of the COVID-19 pandemic. Nobody can predict how tourism will develop in the future, and the only thing remains certain is that it will change a lot. Tourism, including urban tourism, had been developing dynamically for decades and suddenly, in just a few weeks, there was a huge stagnation. Tourist travel has virtually ceased almost all over the world. Owing to the restrictions imposed to stop the spread of the coronavirus, urban tourism is currently experiencing a major regression. In many countries, access to major tourist attractions (museums, architectural monuments) and services (gastronomy, shopping malls) has been restricted. The organization of mass events, such as festivals, concerts and fairs, has been prohibited. The fear of being among large groups of people may remain in people for a long time after the restrictions have been lifted, and it may take several years for urban tourism to return to its pre-pandemic level.

References

Acid News, 2016, https://www.airclim.org/sites/default/files/acidnews_pdf/AN1-16.pdf [accessed: 15.06.2020].

Broere W., 2016, Urban underground space: Solving the problems of today's cities, *Tunnelling and Underground Space Technology*, 55: 245-248, doi.org/10.1016/j.tust.2015.11.012.

CCAC, 2020, *Tropospheric ozone*, https://www.ccacoalition.org/ru/slcps/tropospheric-ozone [accessed: 5.06.2020].

Directive 2008/50/EC of the European Parliament and of the Council of 21 May 2008 on ambient air quality and cleaner air for Europe, OJ L 152, 11.6.2008, p. 1-44.

Edwards D., Griffin T., Hayllar B., 2008, Urban tourism research: Developing an agenda, *Annals of Tourism Research*, 35(4):1032-1052, doi.org/10.1016/j.annals.2008.09.002.

Edwards P.M., Evans M.J., 2017, A new diagnostic for tropospheric ozone production, *Atmospheric Chemistry and Physics*, 17: 13669-13680, doi.org/10.5194/acp-17-13669-2017.

EEA, 2015, The European environment–state and outlook 2015: synthesis report, *European Environment Agency, Copenhagen*, https://www.eea.europa.eu/soer#tab-synthesis-report [accessed: 10.06.2020].

GIOŚ, 2016, *Ozon – dobry i zły*, http://www.gios.gov.pl/pl/aktualnosci/344-ozon-dobry-i-zly [accessed: 19.06.2020].

GIOŚ, 2020, *Rozporządzenie Ministra Środowiska z dnia 8 października 2019 r. zmieniające rozporządzenie w sprawie poziomów niektórych substancji w powietrzu*, https://powietrze.gios.gov.pl/pjp/content/show/1001717 [accessed: 19.06.2020].

Gospodini A., 2001, Urban design, urban space morphology, urban tourism: An emerging new paradigm concerning their relationship, *European Planning Studies*, 9(7): 925-934, doi.org/10.1080/09654310120079841.

Hall C.M., 2002, Tourism in capital cities, *Tourism: An International Interdisciplinary Journal*, 50, 235-248.

IARC, 2016, *Outdoor air pollution*, IARC Monographs on the Evaluation of Carcinogenic Risks to Humans, Vol. 109, Geneva, , http://monographs.iarc.fr/ENG/Monographs/vol109/index.php [accessed: 19.06.2020].

Jędrak J., Konduracka E., Badyda A.J., Dąbrowiecki P., 2017, *Wpływ zanieczyszczeń powietrza na zdrowie*, Krakowski Alarm Smogowy.

Koppen Y., 2009, *The Potential of Cross-Marketing for the Destination Management Organizations of New York City and New York State*, Bonn: GRIN Verlag.

Łapko A., Panasiuk A., Strulak-Wójcikiewicz R., Landowski M., 2020, The State of Air Pollution as a Factor Determining the Assessment of a City's Tourist Attractiveness – Based on the Opinions of Polish Respondents, *Sustainability*, 12(4): 1466, doi.org/10.3390/su12041466.

Łapko A., Strulak-Wójcikiewicz R. & Panasiuk A., 2020, Źródła informacji o zanieczyszczeniach powietrza jako narzędzie planowania wyjazdów turystycznych, article after review, waiting for publication, chapter of the Jagiellonian University monograph.

Law C.M., 2002, *Urban Tourism: The Visitor Economy and the Growth of Large Cities*, London: Cengage Learning Emea.

Lin C.A., Chen Y.C., Liu C.Y., Chen W.T., Seinfeld J.H., Chou C.C.K., 2019, Satellite-Derived Correlation of SO_2, NO_2, and Aerosol Optical Depth with Meteorological Conditions over East Asia from 2005 to 2015, *Remote Sensing*, 11(15): 1738, doi.org/10.3390/rs11151738.

Luck G.W., Davidson P., Boxall D., Smallbone L., 2011, Relations between urban bird and plant communities and human wellbeing and connection to nature, *Conservation Biology*, 25(4), 816-826, doi.org/10.1111/j.1523-1739.2011.01685.x.

Mohamad N.S., Deni S.M., Ul-Saufie A.Z., 2018, Application of the First Order of Markov Chain Model in Describing the PM10 Occurrences in Shah Alam and Jerantut, Malaysia, *Pertanika Journal of Science & Technology*, 26(1).

Panasiuk A., 2007, Tourism Infrastructure as a Determinant of Regional Development, *Ekonomika ir Vydba: Aktualijos ir Perspektyvos*, 1(8), 212-215.

Paunović I., 2014, Branding Serbia as a tourist destination on the global market, *Turizam*, 18(2), 59-71, doi.org/10.5937/Turizam1402059P.

Pawlicz A., 2008, *Promocja produktu turystycznego. Turystyka miejska*, Warszawa: Difin.

Ramirez-Leal R., Cruz-Campas M., Estuardo-Moreno H., 2018, Characterization of PM10 Particles by SEM-EDS, *Microscopy and Microanalysis*, 24(S1): 1070-1071, doi.org/10.1017/S1431927618005834.

Rani H.A., 2017, Determination of Tourism Infrastructure Development Priority in Weh Island – Aceh using Location Quotient, *International Journal of Emerging Technology and Advnced Engineering*, 7(2): 1-4.

Wiesen M., 2017, Air Pollution Emergency Schemes (Smog Alerts) in Europe, Budapest, https://www.levego.hu/sites/default/files/smog_emergency_schemes_in_europe_201703.pdf [accessed: 5.06.2020].
ZEC, 2020, *Twórzmy miasto bez smogu*, https://www.zec.inowroclaw.pl/aktualnosci/more,20561223 [accessed: 10.06.2020].

Jakość powietrza jako czynnik wpływający na turystykę miejską

Streszczenie. Celem artykułu było zdiagnozowanie, czy potencjalni turyści uważają, że informacje o poziomie zanieczyszczenia w danym mieście wpływają na jego atrakcyjność turystyczną, a tym samym determinują decyzje turystyczne. Turystyka miejska jest bardzo powszechną i prężnie rozwijającą się formą turystyki. Miasta przyciągają turystów szeregiem atrakcji turystycznych, bogatą ofertą kulturalną, gastronomiczną i noclegową oraz imprezami masowymi. Jednocześnie są one często także ośrodkami przemysłowymi oraz ważnymi węzłami komunikacyjnymi, co sprawia, że charakteryzują się wysokim stopniem zanieczyszczenia powietrza. W artykule zaprezentowano wyniki badań ankietowych przeprowadzonych na grupie 509 mieszkańców Polski. Na tej podstawie określono, jak ważne są informacje dotyczące zanieczyszczenia powietrza w miastach dla potencjalnych turystów oraz czy znaczenie tych informacji ma związek z innymi czynnikami. Szczególną uwagę zwrócono na stan zdrowia respondentów. Wiele chorób może być wynikiem zanieczyszczenia powietrza, a substancje wchodzące w skład smogu mogą zaostrzać ich przebieg. Podjęto więc próbę odpowiedzi na pytanie, czy cierpiące na nie osoby w szczególny sposób przykładają wagę do jakości powietrza w mieście będącym celem wyjazdu. Uzyskane wyniki stanowią istotny wkład w wiedzę na temat determinant popytu w turystyce miejskiej. Mogą być one ważne dla podmiotów odpowiedzialnych za zarządzanie miastami i ich promocję oraz tworzących produkty turystyczne. Ponadto problemy wynikające z zanieczyszczenia powietrza w miastach mogą dotyczyć nie tylko ich mieszkańców, ale także turystów.

Słowa kluczowe: turystyka miejska, zarządzanie turystyką, atrakcyjność turystyczna, zrównoważona turystyka

Suggested citation: Łapko A., Strulak-Wójcikiewicz R., Panasiuk A., Air quality as a factor affecting urban tourism, *Studia Periegetica*, 2(30): 109-123, DOI: 10.5604/01.3001.0014.4152.